



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0281; Product Identifier 2018-NE-06-AD]

RIN 2120-AA64

Airworthiness Directives; Hoffmann Propeller GmbH & Co. KG Propellers

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Hoffmann Propeller GmbH & Co. KG model HO-V 62 propellers. This proposed AD was prompted by the failure of the propeller blade lag screws. This proposed AD would require removal of the affected propeller blades and installation of modified propeller blades marked with change letter “A” or “B.” We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Hoffmann Propeller GmbH & Co. KG, Sales and Service, K pferlingstrasse 9, 83022 Rosenheim, Germany; phone: +49 (0) 8031 1878 0; fax: +49 (0) 8031 1878 78; email: info@hoffmann-prop.com. You may view this service information at the FAA, Engine & Propeller Standards Branch, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7759.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0281; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Maureen Maisttison, Aerospace Engineer, AIR-7B1, FAA, 1200 District Ave, Burlington, MA 01803; phone: 781-238-7076; fax: 781-238-7151; email: maureen.maisttison@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0281; Product Identifier 2018-NE-06-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2017-0220, dated November 10, 2017 (referred to hereinafter as “the MCAI”), to address the unsafe condition on these products. The MCAI states:

In 1983, occurrences were reported of fatigue failure of propeller blade lag screws, at rotation speeds between 2950 and 3250 revolutions per minute (RPM) in flight.

This condition, if not detected and corrected, could lead to in-flight propeller blade detachment, possibly resulting in damage to the powered sailplane and/or injury to persons on the ground.

To address this potential unsafe condition, Hoffmann issued Service Bulletin (SB) 4, providing the necessary instructions. Consequently, LBA Germany issued AD 83-150 (later revised), which applied only to HO-V 62 propellers with R/L 160T blades, when in combination with a Limbach L 2000 engine, to require a limitation of continuous operation to 2 900 RPM, to prohibit aerobatic flights, calibrate the tachometer, install a placard, and inspection of the propeller blades. LBA AD 83-150/4 also required overhaul and replacement of the affected propeller blades with modified blades, either having 5 lag screws with 12 mm diameter, or 6 screws, and required implementing a time between overhaul (TBO) of 600 flight hours (FH).

Since that AD was issued, based on a stress analysis of lag screws on blades with continuous operating speed above 2 900 RPM, it was determined that the 6-screws configuration or the 5 screws configuration with increased strength is necessary to ensure safe propeller operation. In addition, since the LBA AD applied only to a limited population (Limbach engine only), many propellers have not been modified as described in Hoffmann SB 4C. Consequently,

Hoffmann issued SB E34 Revision B, to provide blade replacement instructions.

You may obtain further information by examining the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0281.

Related Service Information

We reviewed Hoffmann Propeller GmbH & Co. KG Service Bulletin (SB) E34, Rev. B, dated September 18, 2017. The SB describes the instructions for the removal and installation of the propeller blades.

FAA's Determination

This product has been approved by EASA, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all the relevant information provided by EASA and determined the unsafe condition previously described is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require removal of the affected propeller blades and installation of the modified propeller blades marked with change letter "A" or "B" on the blade.

Differences Between this Proposed AD and the MCAI or Service Information

EASA AD 2017-0220 partially restates the requirements of AD 83-150, issued on December 21, 1984, by German aviation authority Luftfahrt-Bundesamt (LBA), which is based on Propellerwerk Hoffmann Rosenheim SB 4, Revision C, dated February 20, 1984. EASA AD 2017-0220 also adds new requirements based on the issuance of Hoffmann Propeller GmbH & Co. KG SB E34, Rev. B dated September 18, 2017.

In restating LBA AD 83-150, EASA AD 2017-0220 maintains a requirement to remove certain propellers from service within 10 flight hours after December 21, 1984, but not later than 31 March 31, 1985. Service Bulletin E34 requires a mandatory immediate maximum propeller rotational speed limitation until the permanent corrective action is completed, within 50 flight hours. The EASA AD 2017-0220 partially restated requirements of SB 4. Additionally, Hoffmann Propeller GmbH & Co. KG SB E34 Revision B and SB 4 Revision C temporarily prohibit acrobatic flight. EASA AD 2017-0220 also adds a new requirement for a mandatory maximum propeller rotational speed limitation within 30 days until the propeller is replaced within 50 flight hours.

This proposed AD does not require a propeller speed limitation but would require removal of the affected propeller blades and installation of modified propeller blades within 30 days of the effective date of this AD.

Costs of Compliance

We estimate that this proposed AD affects 50 propellers installed on airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replace Blades between overhaul	3.0 work-hours X \$85 per hour = \$255.00	\$3,150.00	\$3,405.00	\$85,125.00
Replace Blades at overhaul	0 work-hours X \$85 per hour = \$0.00	\$3,150.00	\$3,150.00	\$78,750.00

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

“Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Hoffmann Propeller GmbH & Co. KG: Docket No. FAA-2018-0281; Product Identifier 2018-NE-06-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Hoffmann Propeller GmbH & Co. KG model HO-V 62 propellers without modified blades marked with change letter “A” or “B” suffix to the S/N.

(d) Subject

Joint Aircraft System Component (JASC) Code 6110, Propeller Assembly.

(e) Unsafe Condition

This AD was prompted by the failure of the propeller blade lag screws. We are issuing the AD to prevent failure of the propeller. The unsafe condition, if not addressed, could result in the release of the propeller blade, damage to the aircraft, injury and/or loss of life.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Within 30 days of the effective date of this AD, remove the applicable propeller blades and install modified propeller blades marked with a change letter “A” or “B” suffix to the S/N marked on the blade.

(h) Installation Prohibition

After the effective date of this AD, do not install a propeller blade if it is not marked with a change letter “A” or “B” suffix to the S/N marked on the blade.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Boston ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the Boston ACO Branch, send it to the attention of the person identified in paragraph (j)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For more information about this AD, contact Maureen Maisttison, Aerospace Engineer, AIR-7B1, FAA, 1200 District Ave, Massachusetts, 01803; phone: 781-238-7076; fax: 781-238-7151; email: maureen.maisttison@faa.gov.

(2) Refer to European Aviation Safety Agency AD 2017-0220, dated November 10, 2017, for more information. You may examine the EASA AD in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2018-0281.

(3) For service information identified in this proposed AD, contact Hoffmann Propeller GmbH & Co. KG, Sales and Service, K pferlingstrasse 9, 83022 Rosenheim, Germany; phone: +49 (0) 8031 1878 0; fax: +49 (0) 8031 1878 78; email: info@hoffmann-prop.com. You may view this referenced service information at the FAA, Engine & Propeller Standards Branch, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7759.

Issued in Burlington, Massachusetts, on July 6, 2018.

Karen M. Grant,
Acting Manager, Engine and Propeller Standards Branch,
Aircraft Certification Service.

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